

What is claimed is:

1. An isolated TGF-beta receptor fusion protein that comprises a splice variant of TGF-beta receptor, the fusion protein competitively inhibiting binding of TGF-beta to TGF-beta receptor.
2. The fusion protein of claim 1, comprising the splice variant of TGF-beta Type II receptor linked to a second protein that is not a TGF-beta receptor.
3. The fusion protein of claim 2, wherein the second protein is a constant region of an immunoglobulin.
4. The fusion protein of claim 3, comprising SEQ ID NO: 2.
5. An isolated TGF-beta receptor fusion protein encoding, on expression, for a polynucleotide sequence comprising SEQ ID NO: 1.
6. The isolated TGF-beta receptor fusion protein of claim 5, comprising SEQ ID NO: 2.
7. An isolated polynucleotide encoding, on expression, for a splice variant form of TGF-beta Type II receptor linked to a second protein that is not a TGF-beta receptor.
8. The isolated polynucleotide of claim 7, comprising SEQ ID NO.1.
9. A composition comprising a splice variant form of TGF-beta receptor fusion protein comprising SEQ ID NO: 2 in a pharmaceutically acceptable carrier, the fusion protein in an amount sufficient to competitively inhibit binding of TGF-beta to a TGF-beta ligand.
10. A vector comprising the polynucleotide sequence of claim 7.
11. A host cell containing the vector of claim 10.

12. A method for producing a variant form of TGF-beta receptor fusion protein, comprising culturing the host cell of claim 11, allowing said cell to express the fusion protein, isolating and purifying the fusion protein.
- 5 13. A method for lowering the levels of TGF-beta in an individual in need thereof which comprises administering to said individual a TGF-beta-lowering amount of a TGF-beta antagonist that is a TGF-beta receptor fusion protein comprising amino acid residues 1 to 185 of SEQ ID NO:2.
- 10 14. A method for lowering the levels of TGF-beta in an individual having arthritis, which comprises administering to said individual an effective amount of a TGF-beta antagonist that is a TGF-beta receptor fusion protein comprising amino acids 1 to 185 of SEQ ID NO:2.
- 15 15. A method for treating an individual for a medical condition associated with TGF-beta overproduction comprising the step of administering to the individual a TGF- beta Type II receptor fusion protein comprising amino acids 1 to 185 of SEQ ID NO: 2 .
- 20 16 The method of claim 15, wherein the TGF- beta receptor fusion protein is administered by a method selected from the group consisting of intravenous, intraocular, intraarticular, transdermal, and enteral administration.
17. The method of claim 15, wherein said medical condition comprises a fibroproliferative disorder.
- 25 18 The method of claim 17, wherein said fibroproliferative disorder comprises a fibrosis selected from the group consisting of kidney, intraocular, and pulmonary fibrosis.
- 30 19. The method of claim 17, wherein said fibroproliferative disorder is selected from the group consisting of diabetic nephropathy, glomerulonephritis, proliferative vitreoretinopathy, and myelofibrosis.

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